


REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	03OCT24	X

HOLE TOLERANCE
UNLESS SPECIFIED
PLATED: +/- .003
NON PLATED: +/- .002

DRILL CHART: TOP to BOTTOM				
ALL UNITS ARE IN MILS				
FIGURE	SIZE	PLATED	QTY	TOLERANCE/NOTES
+	6.0	PLATED	79	
□	10.0	PLATED	896	
⊙	12.0	PLATED	148	
•	40.0	PLATED	10	
⊙	70.0	PLATED	2	
◇	100.0	PLATED	14	
△	200.0	PLATED	4	
Ⓜ	213.0	PLATED	4	
Ⓚ	142.0	NON-PLATED	4	
□	187.0	NON-PLATED	4	

PRIMARY SIDE						
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES DECIMALS FRACTIONS ANGLES .XX -.010 +-1/32 +- .2 .XXX -.005 .XXXX -.0050			APPROVAL		DATE	
			TEMPLATE ENGINEER X		ddMMyy	
			HARDWARE SERVICES X		ddMMyy	
			HARDWARE SYSTEMS X		ddMMyy	
			TEST ENGINEER X		ddMMyy	
MATERIAL			COMPONENT ENGINEER X		ddMMyy	
			TEST PROCESS X		ddMMyy	
			HARDWARE RELEASE X		ddMMyy	
			DESIGNER K. CHAN		ddMMyy	
			PTD ENGINEER X		ddMMyy	
FINISH			CHECKER X		ddMMyy	
DO NOT SCALE DWG						

 ANALOG DEVICES		WMM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887			
		TITLE FABRICATION EVAL-LT8292-BZ			
SIZE	FSCM NO	DRAWING NUMBER		REV	
C	24355	09-082087		A	
SCALE		1/1		SHEET 1 OF 2	

1. DIMENSIONS ARE IN INCHES (EXCEPT WHERE NOTED).
ALL DOCUMENTS & SPECIFICATIONS REFERRED TO BELOW SHOULD BE THE LATEST REVISIONS.

2. BOARD MATERIAL:(USE CHECKED ITEMS)

- (X) ISOLA 370HR OR S1000-2 OR IT180 OR EQUIVALENT
() ISOLA-FR408HR OR EQUIVALENT
() ISOLA IS410
() MEGTRON 6
() NELCO-4000-13
() ROGERS 4350B
() ROGERS 3003
() ARLON 85N
() EM370D
() OTHER _____
3. ALL LAMINATES & BONDING MATERIALS SHOULD BE SELECTED FROM IPC-4101 OR IPC-4103. (TG>170 DEG C TD>300 DEG C)
UL FLAMMABILITY RATING 94V-0. BOARD MATERIAL & CONSTRUCTION SHALL MEET THE REQUIREMENTS OF UL796/UL796F.
4. REFER TO IPC-6010 SERIES, CLASS 2 FOR FABRICATION. WORKMANSHIP SHALL CONFORM TO IPC-A-600, CLASS 2.
5. REFER TO LAMINATION DIAGRAM FOR OVERALL BOARD THICKNESS, TOLERANCE APPLIES AFTER ALL LAMINATION AND PLATING
PROCESSES. FINISHED THICKNESS MEASURED FROM TOP COPPER TO BOTTOM COPPER.
6. BOW & TWIST NOT TO EXCEED 0.0075 INCHES (0.75%) PER LINEAR INCH AND SHOULD BE MEASURED PER IPC-TM-650, METHOD 2.4.22.
7. ACCEPTABILITY PER ADI SPECIFICATION TS00115.

IMPEDANCE REQUIREMENTS: IF NO STACKUP IS DEFINED, THE VENDOR IS ALLOWED TO ADJUST THE DIELECTRIC THICKNESS & TRACE WIDTHS TO MEET THE IMPEDANCE REQUIREMENT. IF SPECIFIED, THE VENDOR MUST MEET THE REQUIREMENTS LISTED IN THE IMPEDANCE TABLE. ANY ADJUSTMENT MADE TO THE DEFINED STACKUP, TRACE WIDTH & SPACING THAT IMPACT THE REQUIREMENTS MUST HAVE WRITTEN APPROVAL FROM ADI.

FILLET OPTIONS TO ENHANCE RELIABILITY AT PAD JUNCTIONS WHERE SPACING PERMITS.

() FILLETS ALLOWED

(X) FILLETS NOT ALLOWED

0. THIEVING:

() VENDOR MAY ADD THIEVING TO COMPENSATE FOR LOW COPPER DENSITY AREAS MAINTAINING A MINIMUM 0.100 INCH CLEARANCE FROM ALL COPPER FEATURES.

(X) VENDOR MAY NOT ADD THIEVING TO COMPENSATE FOR LOW COPPER DENSITY AREAS.

1. LAYER TO LAYER REGISTRATION SHALL BE WITHIN 0.003 INCHES.

2. DRILL SIZES ARE FINISHED HOLE SIZES. ALL HOLES SHALL BE LOCATED WITHIN 0.005 INCHES DTP, UNLESS SPECIFIED. MINIMUM BARREL PLATING OF 0.001 INCHES. PLATED HOLES SHALL NOT BE ROUGH OR IRREGULAR SO AS TO HINDER PROPER SOLDER WICKING. BARREL RELIEF ON SOLDERMASK ALLOWED IN UNFILLED VIA IN PAD HOLES.

3. PLATING SPECIFICATION:
- (X) REFER TO LAMINATION DIAGRAM FOR FINISHED COPPER WEIGHT/THICKNESS REQUIREMENTS
- THE STARTING COPPER WEIGHT/THICKNESS CAN VARY AS LONG AS THE FINISHED COPPER WEIGHT/THICKNESS IS NOT LESS THAN THE SPECIFIED VALUE.
4. SURFACE FINISH:
- (X) IMMERSION GOLD (ENIG) 1.58-3.94 MICRO INCHES OVER 118-236 MICRO INCHES MIN. OF ELECTROLESS NICKEL PER IPC-4552
- () OSP (ORGANIC SOLDERABILITY PRESERVATIVE)
- () IMMERSION SILVER
- () SOFT WIRE BONDABLE GOLD 30-50 MICRO INCHES OF SOFT WIRE
- BONDABLE GOLD OVER 100-150 MICRO INCHES OF NICKEL
- () EDGE CONNECTOR FINGERS ARE TO BE PLATED WITH 100 MICRO-INCHES(.0001") OF LOW STRESS NICKEL UNDER 30 MICRO-INCHES (.0003") OF GOLD
- () OTHER _____
5. SOLDERMASK:
- SOLDERMASK OVER BARE COPPER OR BARE GOLD (BOTH SIDES) TO MEET IPC-SM-840.
- IF PRESENT, DO NOT MODIFY SOLDERMASK DEFINED PADS (MASK OPENINGS LESS THAN COPPER PAD) WITHOUT APPROVAL.
- (X) LPI
- () OTHER _____
- COLOR
- () GREEN
- (X) OTHER BLUE
16. APPLY SILKSCREEN TO BOTH SIDES USING A NON-CONDUCTIVE, EPOXY BASED INK PER ARTWORK.
- (X) WHITE
- () OTHER

7. FINAL ELECTRICAL TEST TO BE PERFORMED USING PROVIDED IPC-D-356A NETLIST OR ODB++ FORMAT FILE. THE PCB SHALL HAVE A VERIFICATION STAMP.

8. A TIME DOMAIN REFLECTOMETER REPORT (TDR) FOR EACH IMPEDANCE CONTROLLED LAYER & A CERTIFICATE OF COMPLIANCE SHALL BE PROVIDED BY VENDOR AT TIME OF SHIPMENT. INSTANCES WHERE TDR TESTING CAN'T BE PERFORMED BECAUSE THE TRACE LENGTH IS TOO SHORT ON THE OUTER LAYERS AT THE PIN ESCAPES IS ACCEPTABLE. ALL OTHER INSTANCES MUST BE REPORTED.

9. IF PRESENT, ALL BLIND/BURIED VIAS WITH AN ASPECT RATIO <1:1 TO BE PLATED SHUT WITH COPPER WHEN USED AS VIA-IN-PAD OR AS A STACKED VIA. BLIND/BURIED VIAS WITH AN ASPECT RATIO >1:1 TO BE FILLED WITH NON-CONDUCTIVE EPOXY.

10. FOR VIA FILL INFORMATION REFER TO DRILL CHART:

- () NON-CONDUCTIVE EPOXY FILL ALL 0.XXXX INCHES DRILLED VIAS
- () COPPER FILL ALL 0.XXXX INCHES DRILLED VIAS

11. INTENTIONAL SHORTS:

IF AN INTENTIONAL SHORT REPORT IS SUPPLIED AND DOES NOT MATCH THE FAB DATA THEN ADI APPROVAL IS REQUIRED.

12. PEMNUTS:

- () PEMNUTS TO BE INSTALLED BY FABRICATOR
- () PEMNUTS NOT TO BE INSTALLED BY FABRICATOR
- (X) NOT APPLICABLE

13. MANUFACTURER TO ETCH/STAMP WITH PERMANENT NON-CONDUCTIVE INK ON SECONDARY SIDE UNLESS OTHERWISE SPECIFIED:

- A. UL CODE-FLAMMABILITY RATING FOR THOSE APPROVED MATERIALS(IF APPLICABLE)
- B. DATE CODE
- C. LOT NUMBER
- D. MANUFACTURER LOGO

25. PANELIZATION:

- BOARDS TO BE SHIPPED IN ARRAY AND KEPT INTACT
- PANEL TO BE SUBJECTED TO CUSTOMERS APPROVAL
- PANEL SOLDER PASTE STENCIL GERBER TO BE PROVIDED TO ANALOG

27. MINIMUM DESIGN LINE WIDTH IS .006 INCH.

28. MINIMUM DESIGN LINE SPACING IS .006 INCH.

FAB NOTES REVISION: 2ND NOVEMBER 2022

LAMINATION DIAGRAM				
LAYER NUMBER	LAYER NAME	COPPER THICKNESS (OZ, INCH)	DIELECTRIC THICKNESS (INCH)	MATERIALS
1	TOP	2 OZ, 0.0028"		FINAL CU (THICKNESS AFTER PLATING)
			0.0063	ISOLA 370HR/EQUIVALENT
2	LAYER_2	2 OZ, 0.0028"		CU CLAD
				ISOLA 370HR/EQUIVALENT
3	LAYER_3	2 OZ, 0.0028"		CU CLAD
			0.0063	ISOLA 370HR/EQUIVALENT
4	BOTTOM	2 OZ, 0.0028"		FINAL CU (THICKNESS AFTER PLATING)

THE FINISHED PCB THICKNESS TO BE: 0.062" +/- 10%

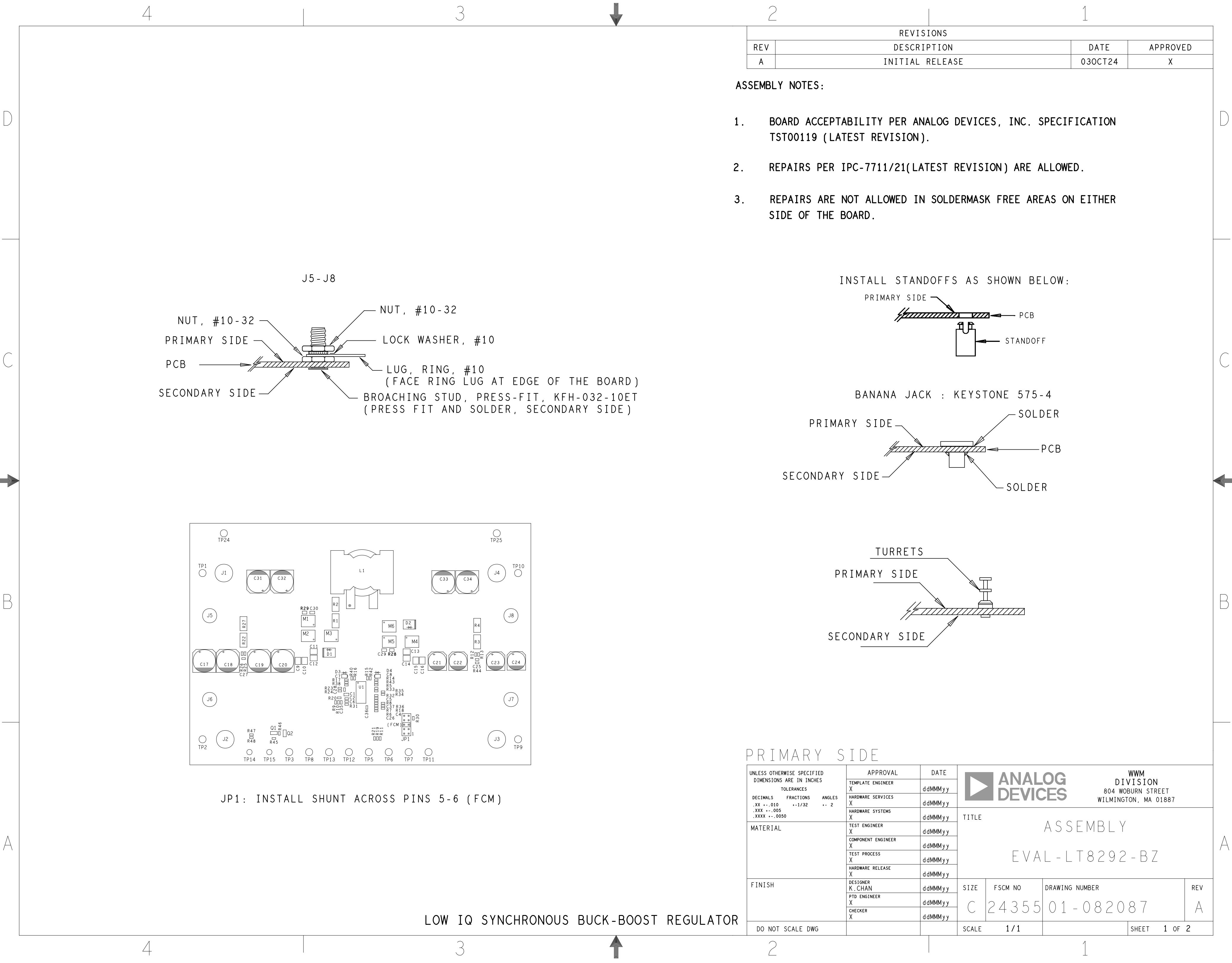


ANALOG
DEVICES

WWM
DIVISION
804 WOBURN STREET
WILMINGTON, MA 01887

SIZE	FSCM NO	DRAWING NUMBER	REV
C	24355	09-082087	A
SCALE	1/1	SHEET	2 OF 2

LOW IQ SYNCHRONOUS BUCK-BOOST REGULATOR

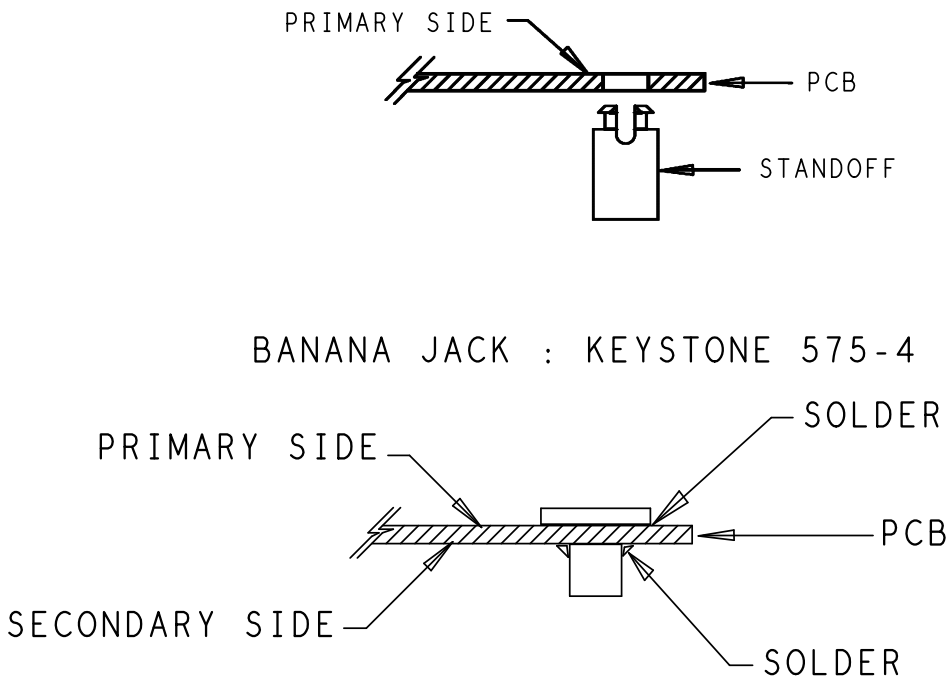


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ASSEMBLY NOTES:

- BOARD ACCEPTABILITY PER ANALOG DEVICES, INC. SPECIFICATION TST00119 (LATEST REVISION).
- REPAIRS PER IPC-7711/21(LATEST REVISION) ARE ALLOWED.
- REPAIRS ARE NOT ALLOWED IN SOLDERMASK FREE AREAS ON EITHER SIDE OF THE BOARD.

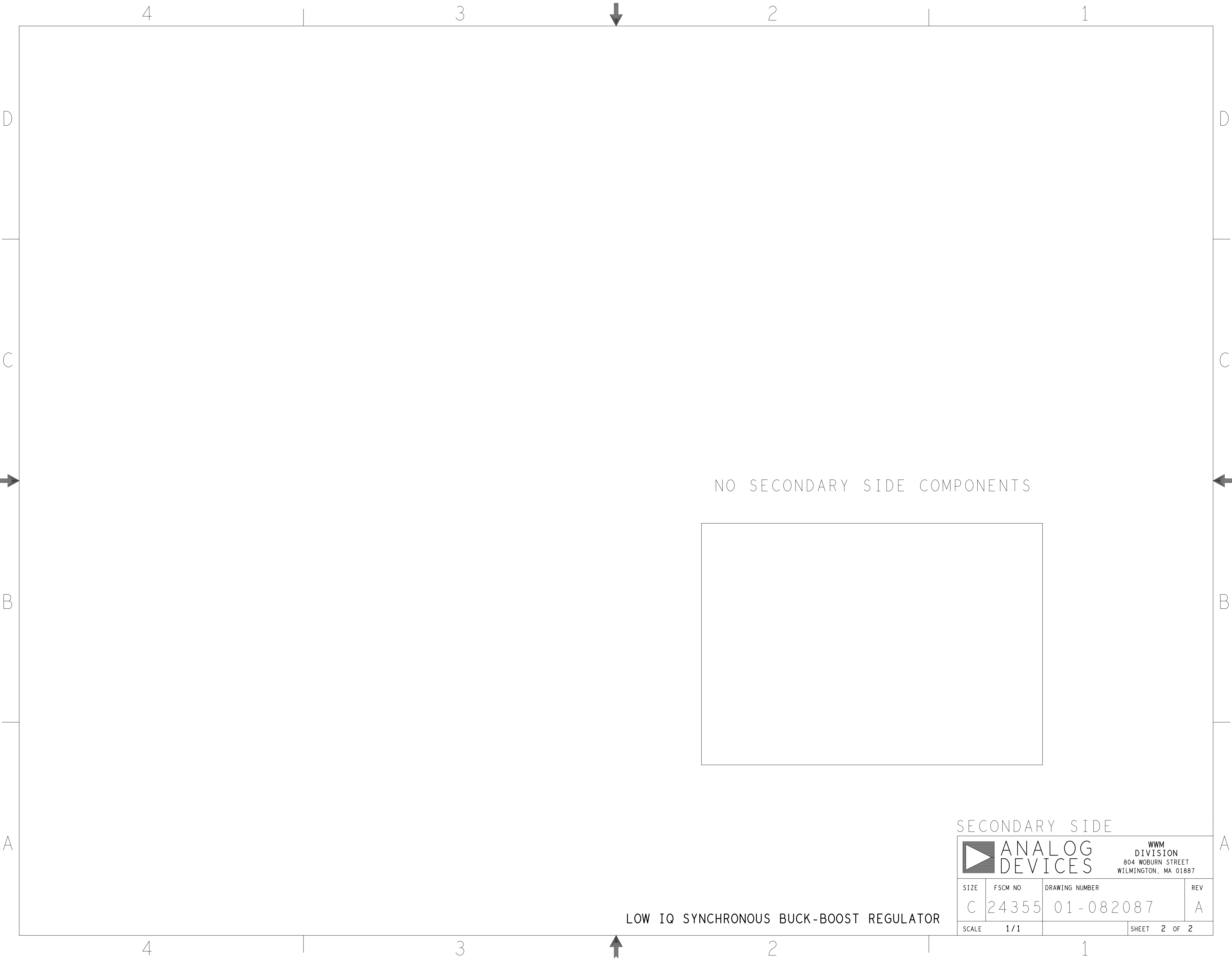
INSTALL STANDOFFS AS SHOWN BELOW:



JP1: INSTALL SHUNT ACROSS PINS 5-6 (FCM)

LOW IQ SYNCHRONOUS BUCK-BOOST REGULATOR

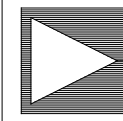
PRIMARY SIDE			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES DECIMALS .XX ±.010 .XXX ±.005 .XXXX ±.0050 FRACTIONS --1/32 ANGLES -- 2	APPROVAL	DATE	<div><div></div><div>ANALOG DEVICES</div></div> <div>WWM DIVISION 804 WOBURN STREET WILMINGTON, MA 01887</div>
	TEMPLATE ENGINEER	ddMMyy	
	HARDWARE SERVICES	ddMMyy	
	HARDWARE SYSTEMS	ddMMyy	
MATERIAL	TEST ENGINEER	ddMMyy	TITLE ASSEMBLY EVAL-LT8292-BZ
	COMPONENT ENGINEER	ddMMyy	
	TEST PROCESS	ddMMyy	
	HARDWARE RELEASE	ddMMyy	
FINISH	DESIGNER K.CHAN	ddMMyy	SIZE C
	PTD ENGINEER	ddMMyy	
	CHECKER	ddMMyy	
DO NOT SCALE DWG		SCALE 1/1	FSCM NO 24355
			DRAWING NUMBER 01-082087
			REV A
			SHEET 1 OF 2



NO SECONDARY SIDE COMPONENTS

LOW IQ SYNCHRONOUS BUCK-BOOST REGULATOR

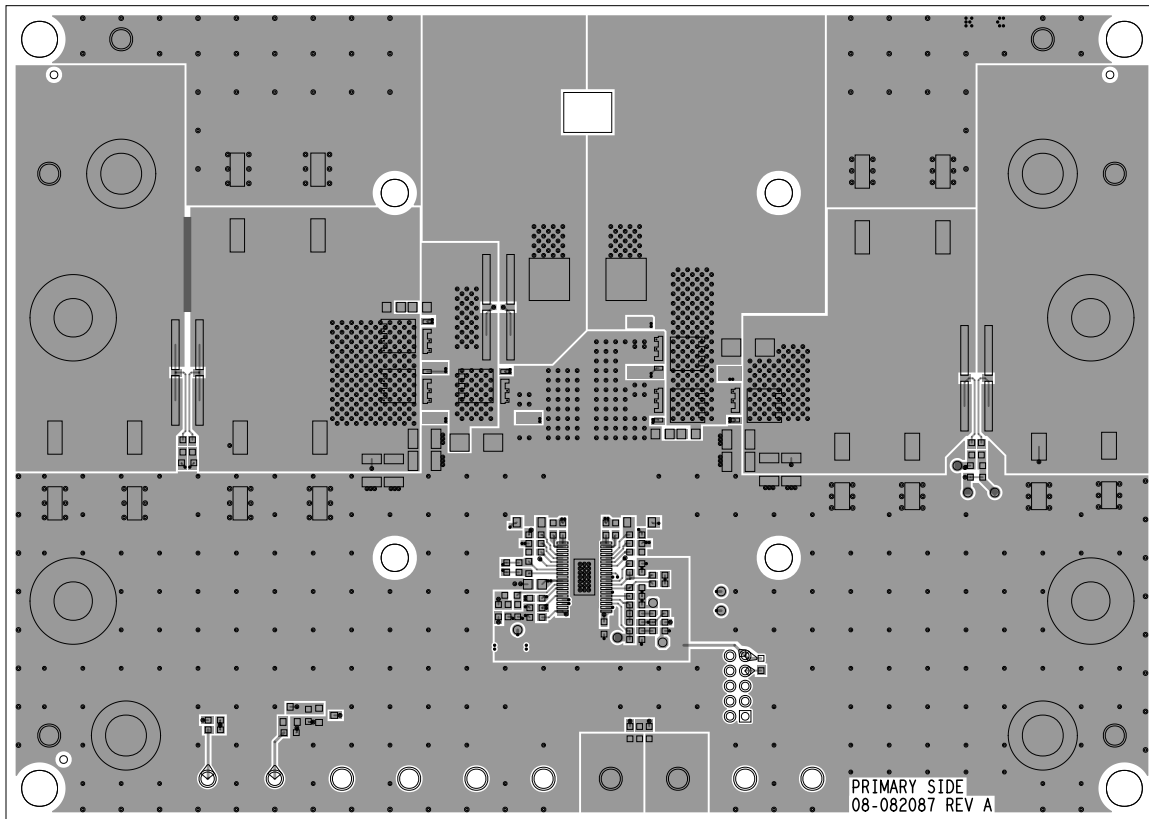
SECONDARY SIDE

ANALOG
DEVICES

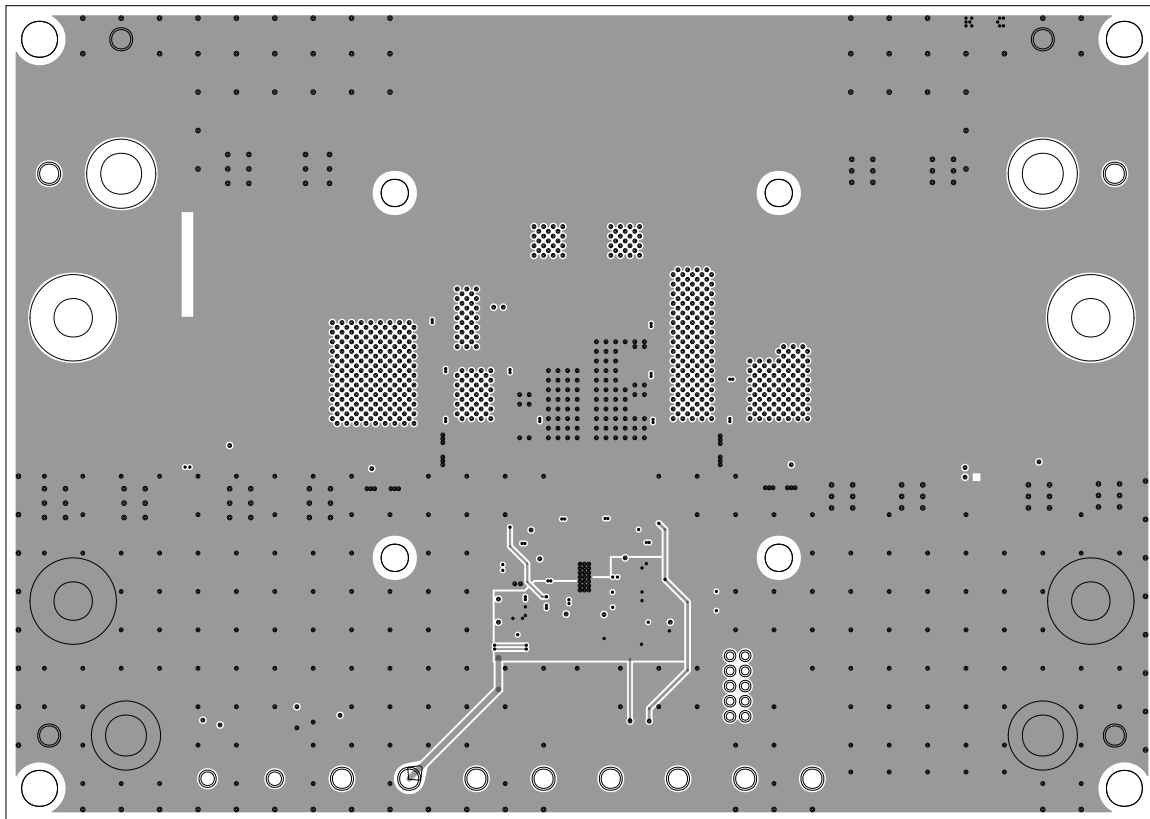
WWM
DIVISION
804 WOBURN STREET
WILMINGTON, MA 01887

SIZE	FSCM NO	DRAWING NUMBER	REV
C	24355	01-082087	A
SCALE	1 / 1	SHEET 2 OF 2	

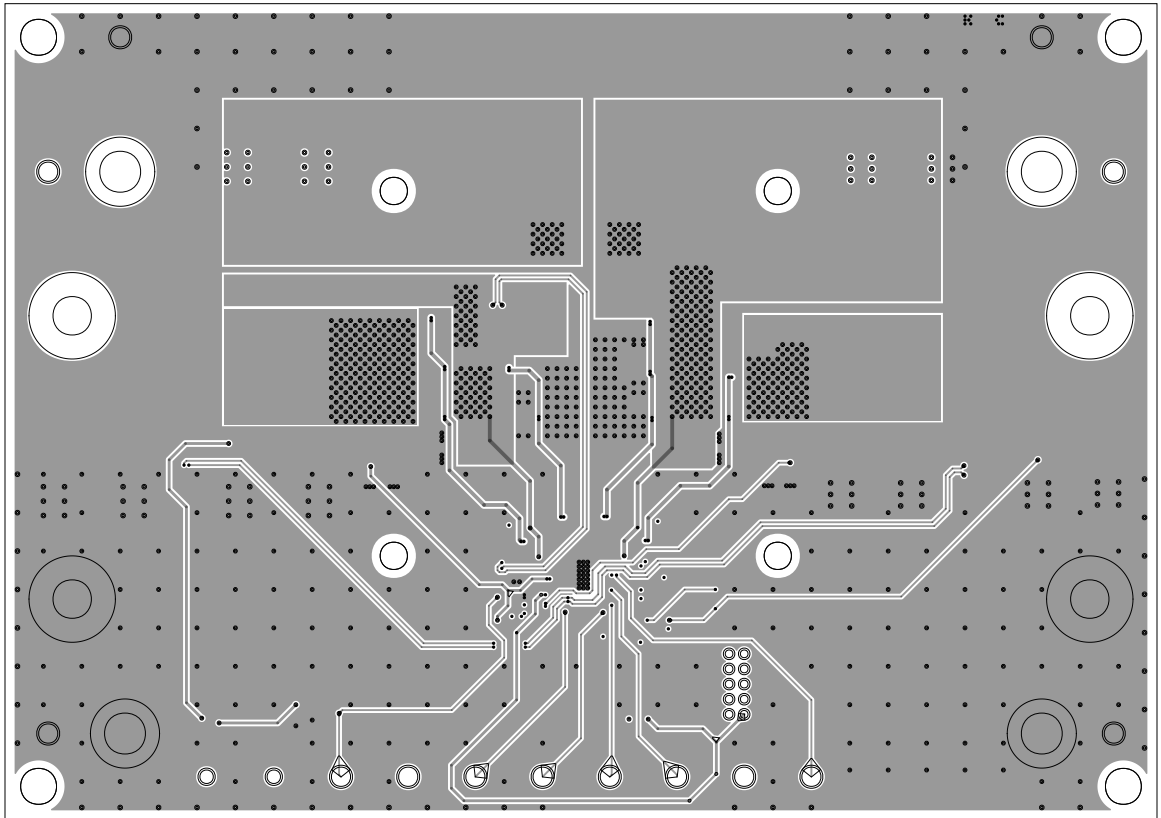
L1 PRIMARY
08-082087-01
REV A



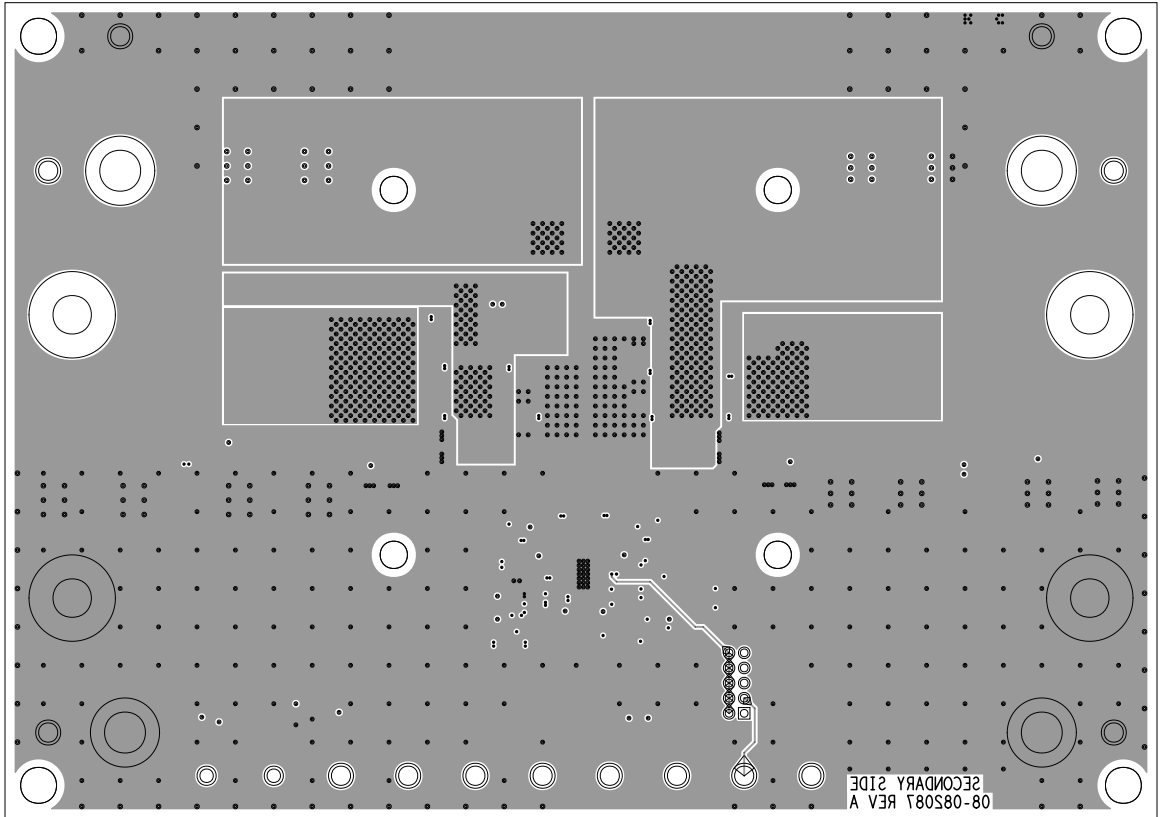
L2 INTERNAL
08-082087-07
REV A



L3 INTERNAL
08-082087-08
REV A



L4 SECONDARY
08-082087-02
REV A

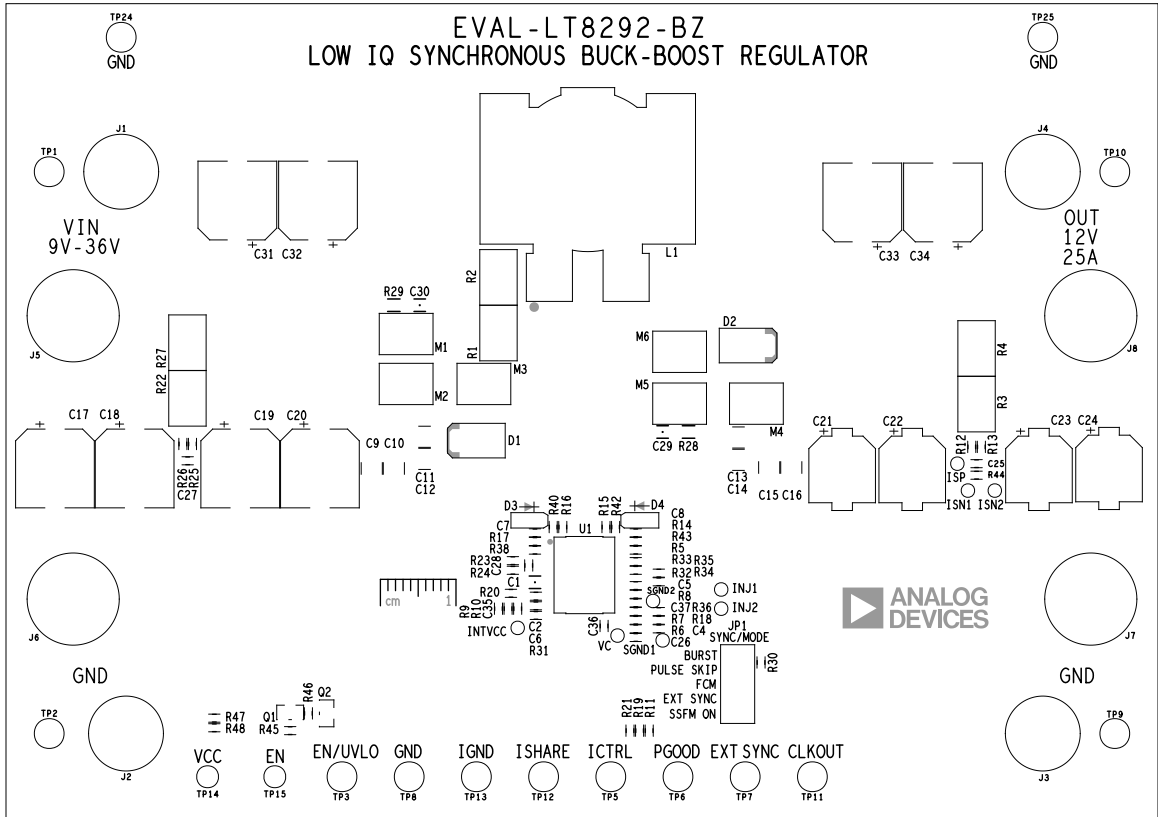


SILKSCREEN PRIMARY

08-082087-03

REV A

EVAL-LT8292-BZ LOW IQ SYNCHRONOUS BUCK-BOOST REGULATOR



SILKSCREEN SECONDARY
08-082087-05
REV A



GND

GND

0A-38A
NIV

TS2
VSI
TUO

GND

GND

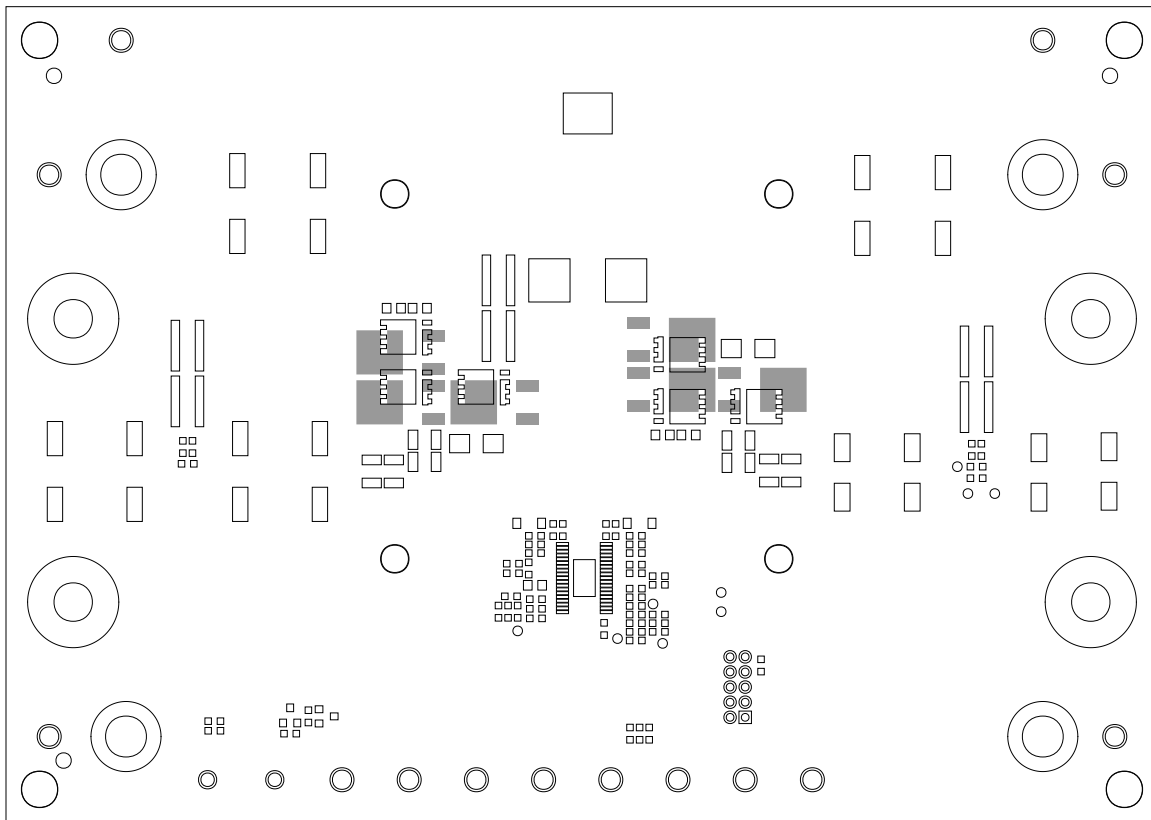
252FN ON
EXT SYNC
LCM
PULSE SKIP
BURST
252FN ON

CLKOUT EXT SYNC GOOD ICTRL I2SHARE IGND GND ENVVLT0 EN ACC

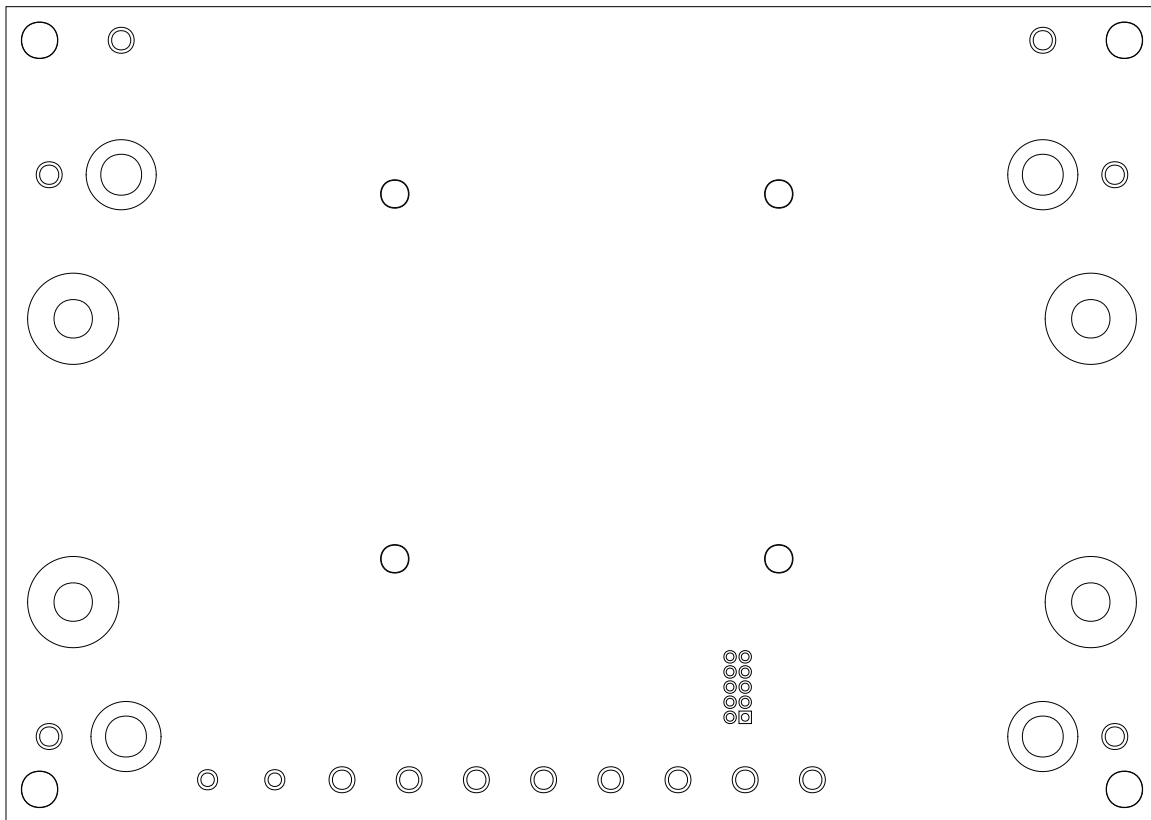
SOLDERMASK PRIMARY

08-082087-04

REV A



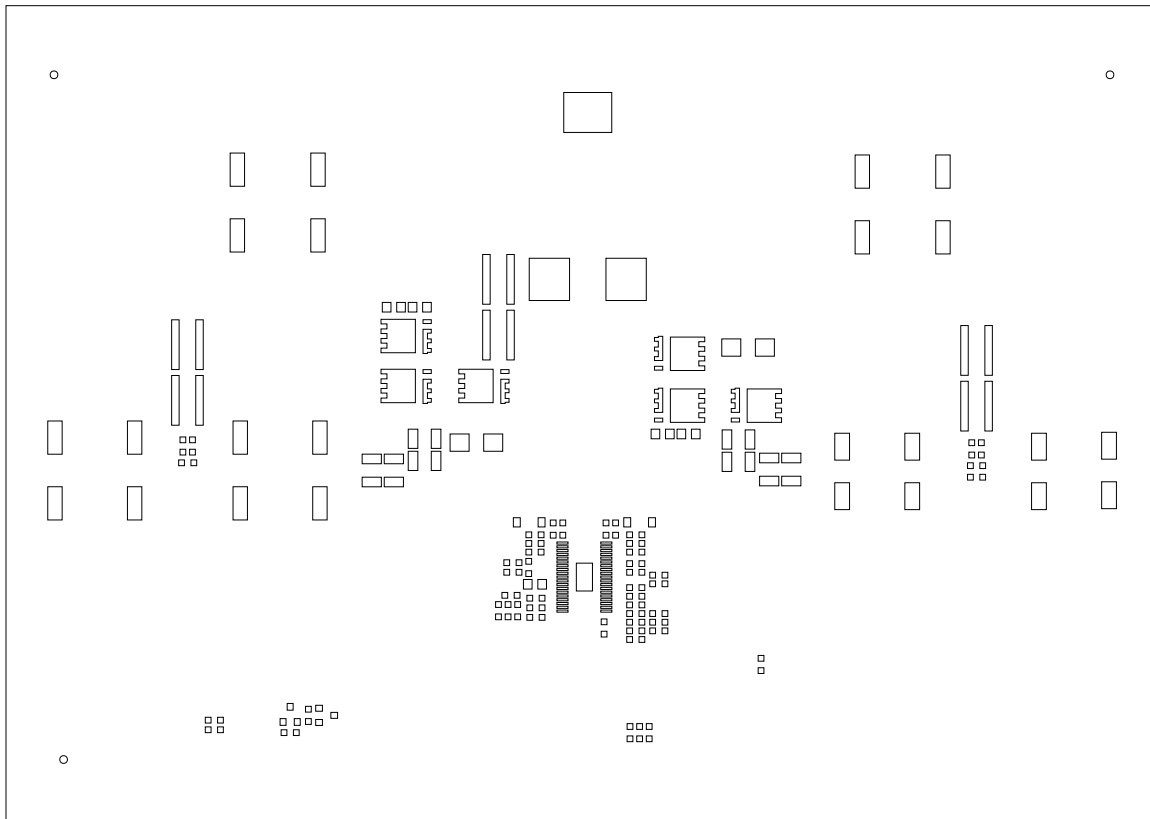
SOLDERMASK SECONDARY
08-082087-06
REV A



PASTEMASK PRIMARY

08-082087-13

REV A



PASTEMASK SECONDARY
08-082087-14
REV A

